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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,890	07/07/2000	MAREK LAGODZINSKI		3134

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EXAMINER

TRAN, LOUIS B

ART UNIT PAPER NUMBER

3721

DATE MAILED: 03/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/582,890

Applicant(s)

LAGODZINSKI ET AL.

Examiner

Louis B Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to applicants' amendment received on July 1, 2002 in Paper No. 15.

Specification

2. The disclosure is objected to because of the following informalities: Page 2, line 22 states, "At the end of the power stoke". It is assumed applicant has intended to state "stroke". Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 2, 6-8, 10, 12-18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Melocco (5,90,894).

With respect to claim 1, Melocco shows the invention as claimed including a power actuated piston tool with a piston automatic return comprising an external barrel 1 having a rear end, a guiding barrel 7 disposed in the external barrel, a fastener guide 6 disposed in the external barrel 1, a piston means having a piston shank and a piston head disposed in said guiding barrel, said piston means 21 being configured to be moveable between a firing position, an initial position, and a fastening position, a firing pin assembly disposed at the rear end of the external barrel and operatively connected to the external barrel 1, and piston return means 11 configured to automatically return the piston means from the fastening position to the firing position, said piston return means being disposed on said piston shank between the piston head 9 and the fastener guide 6, said piston return means comprising a one piece elastic returning bush having a shape of bellows, said returning bush having an external bellows diameter which varies regularly in a longitudinal direction and an internal bellows diameter which varies regularly in the longitudinal direction, said piston return means being configured such that in the initial position, a sum of a longitudinal length of said piston return means plus a longitudinal length of the fastener guide is greater than a longitudinal length of the piston shank.

With respect to claim 2, Melocco shows the invention as claimed including wherein said returning bush is configured to approximate at least one of a stack of truncated-spherical segments, a stack of frusto-conical segments, and a stack of barrel shaped segments as seen in Figure 2.

With respect to claim 6, Melocco teaches the wherein a length of said returning bush is configured such that, in the initial position, a piston shank end face does not reach its extreme forward position and remains at a distance from a base as in column 4, lines 18-22.

With respect to claim 7, Melocco teaches wherein a maximum external diameter of said returning bush is configured to be smaller than an internal diameter of the guiding barrel such that, in the initial position, an external diameter of said returning bush is smaller than the internal diameter of the guiding barrel seen in Figure 2.

With respect to claim 8, Melocco teaches an outer barrel having a firing chamber with an outer surface and a thick part disposed in the guiding barrel, said fastener guide being configured such that said thin end protrudes from the outer barrel, a piston having a piston head disposed in the guiding barrel and a piston shank disposed in the fastener guide, said piston being configured to be moveable from a firing position to an initial blocking position and to a fastening position, a firing pin assembly mounted at the first end of the outer barrel and a hollow element having a bellows shape configured to cause an automatic return of the piston from the fastening position to the firing position said hollow element being disposed on the piston shank between the piston head and the fastener guide, said hollow element comprising an elastomeric material, an external diameter of the hollow element and an internal diameter of the hollow element both varying regularly to form uniformly spaced dwellings and narrowings running longitudinally on an outer surface and an inner surface of the hollow element, wherein between each two neighboring narrowings is formed a segment with at least one of a

sinusoidal, a frusta-spherical, a frusta-conical, and a barrel wall contour, and wherein in the initial blocking position a sum of a longitudinal length of said hollow element plus a longitudinal length of the fastener guide is greater than a length of the piston shank seen in Figure 2.

With respect to claim 10, Melocco teaches wherein walls of end segments of said hollow element are thicker than walls of inner segments of said hollow element as seen in Figure 2.

With respect to claim 12, Melocco teaches wherein a sum of a longitudinal length of said hollow element plus a length of the fastener guide is greater than a length of the piston shank, said piston being configured such that a piston shank end face is distanced from the outer surface of the fastener guide in an initial blocking position of the piston as seen in Figure 2.

With respect to claim 13, Melocco teaches an outer barrel having a firing chamber at a first end thereof, a guiding barrel mounted in the outer barrel, a fastener guide having a thin end with an outer surface and a thick part disposed in the guiding barrel, said fastener guide being configured such that said thin end protrudes from the outer barrel, a piston having a piston head disposed in the guiding barrel and a piston shank disposed in the fastener guide, said piston being configured to be moveable between a firing position and a fastening position, a firing pin assembly mounted at the first end of the outer barrel, and a one piece hollow element formed of segments and disposed on the piston shank between the piston head and the fastener guide, said hollow element comprising elastomeric material, wherein a sum of a length of the

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fastener guide plus a length of said hollow element when the piston is in an initial blocking position is greater than a length of the piston shank, said piston being configured such that a piston shank end face is distanced from the outer surface of the fastener guide in the initial blocking position of the piston, said hollow element having at least one end segment which has a thicker wall than a non-end segment seen in Figures 2 and 3.

With respect to claim 14, Melocco teaches wherein a wall of each segment of the segments of the hollow element has a sinusoidal cross-section as seen in Figure 2.

With respect to claim 15, Melocco teaches wherein a wall of each segment of the segments of the hollow element has a frustum of sphere cross-section as seen in Figure 2.

With respect to claim 16, Melocco teaches wherein a wall of each segment of the segments of the hollow element has a frustum of a cone cross-section as seen in Figure 2.

With respect to claim 17, Melocco teaches wherein a wall of each segment of the segments of the hollow element has a barrel cross-section as seen in Figure 2.

With respect to claim 18, Melocco teaches wherein a wall of each segment of the segments of the hollow element has a frustum of barrel cross-section as seen in Figure 2.

With respect to claim 20, Melocco teaches wherein walls of both end segments of the hollow element are thicker than walls of inner segments of the hollow element as seen in Figure 2.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melocco (5,90,894) in view of Brunelle (3,331,546).

With respect to claim 3 and 9, Melocco discloses the invention substantially as claimed including wherein said returning bush has two end segments at least one of which has a maximum internal diameter.

However, Melocco does not show at least one segment of which has a maximum internal diameter which is less than a maximum internal diameter of remaining segments of said returning bush.

However, Brunelle teaches the use of at least one end segment of which has a maximum internal diameter which is less than a maximum internal diameter of remaining segments of said returning bush for the purpose of absorbing a high degree of energy as in column 1, lines 20-30 and column 2, lines 9-40.

Therefore, it would have been obvious to one having ordinary skill in the art to provide Melocco with varying internal diameters in order to absorb a high degree of energy.

With respect to claim 4, Melocco teaches the use of a power actuated piston wherein end segment walls of said returning bush are thicker than other segments of said returning bush as seen in Figure 2.

7. Claims 5, 11, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melocco (5,90,894) in view of Bialobrzewski (4,235,427).

Melocco discloses the invention substantially as claimed as described above but does not show wherein a piston return means has an internal end surface that is curved such that a position of a center of curvature of the curved end surface is disposed at a distance from an end-face of said piston return means.

However, Bialobrzewski teaches the common spring design wherein a piston return means has an internal end surface that is curved such that a position of a center of curvature of the curved end surface is disposed at a distance from an end-face of said piston return means (as in claim 5), wherein an inner end surface of end segments of said hollow element is outwardly curved (as in claim 11), wherein an inner end surface of end segments of the hollow element is outwardly curved (as in claim 19), for the purpose of adjustment of spring rate as described in column 1, lines 61-68.

Therefore, it would have been obvious to one having ordinary skill in the art to provide Melocco with a curved internal radius in order to adjust for spring rate.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are Anderson, Jarret et al., Stevenson, Paulsen, Shibata, and Snelling.

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9. Applicant's remarks have been fully considered but are deemed non-persuasive. Applicant contends that the prior art does not have an internal bellows diameter which varies regularly. However, Melocco inherently has a diameter which varies regularly. It is the examiner's position that elastic bellows spring material would inherently have diameter variation due to the material. If a micrometer were used to measure the internal diameter, one of ordinary skill would find that the internal diameter does vary. Applicant has not defined the variation to occur with respect to an outer diameter variation. As claimed, the requirement for internal diameter variation is met.

Applicant has continued to further define an internal diameter and external diameter which vary regularly to form spaced swellings. Examiners maintain that bellows commonly possess this feature as exemplified by both the Bialobrzewski and the cited prior art for stiffness adjustment.

For the reasons above, the grounds of rejection are deemed proper.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis B Tran whose telephone number is 703-305-0611. The examiner can normally be reached on 8AM-6PM Monday-Friday.

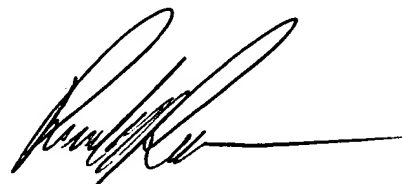
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I Rada can be reached on 703-308-2187. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

lbt
March 18, 2003

A handwritten signature in black ink, appearing to read 'Rinaldi I. Rada', with a long horizontal line extending to the right.

Rinaldi I. Rada
Supervisory Patent Examiner
Group 3700